

MCI

1801 Pennsylvania Ave. NW Washington, DC 20006 202 887 274

Michael K. Cahill Senior Manager Regulatory Affairs EX PARTE OR LATE FILED

DOCKET FILE COPY ORIGINAL

# EX PARTE

FECEIVED

December 23, 1993

Mr. William F. Caton
Secretary
Federal Communications Commission
Room 222
1919 M Street NW
Washington, D.C. 20554

DEC 2 3 1993

FEDERAL COMMUNICATION OF ICE OF THE SECRET SARY

Re: CC Docket No. 92-77 (Phase II), Billed Party Preference

Dear Mr. Caton,

Attached are the "Billed Party Preference Service Description" and copies of letters sent to the Chairman and the Commissioners. Please include these in the record of this proceeding.

Sincerely

Michael K. Cahilí

Attachments

No. of Copies rec'd List ABCDE

December 23, 1993

Reed Hundt Chairman Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554

RE: CC Docket No. 92-77 (Phase II), Billed Party Preference

#### Dear Chairman:

We are writing to you and your colleagues to express the mutual agreement of the undersigned companies on a service design for implementation of Billed Party Preference (BPP). The attached "BPP Service Description" represents a consensus view of the undersigned companies regarding key issues of BPP implementation. We developed the "BPP Service Description" in the belief that the Commission may decide this proceeding very soon. Thus, our efforts are intended to facilitate certain decisions the Commission must make, should it decide to order BPP implementation.

The "BPP Service Description" has been designed to extend the convenience of "0+" dialing to all customers of local and interexchange carriers and card issuers. The "BPP Service Description" will afford all customers the convenience of "0+" dialing from any phone; the ability to preselect their service provider; and the assurance of paying that provider for all their alternately billed calls (i.e., calling card, collect, and third number).

Additionally, the "BPP Service Description" has been designed to provide efficient means for IXCs to compete, with network access parity, in the calling card market. With BPP, all IXCs are positioned to receive interLATA traffic on a "0+" basis from any location, regardless of the billing information being used and regardless of which carrier may be the presubscribed choice of the originating line.

Costs for BPP implementation, as previously stated individually on the public record by the undersigned local exchange companies, are also consistent with the "BPP Service Description" and, once verified by the commission, are appropriate for full recovery. For example, the attached "BPP Service Description" calls for implementation with 10 digit screening, rather than "14-digit

screening". Implementation of BPP with 14 digit screening is not viable because it would, among other things, significantly increase the direct and indirect cost of BPP.

Representatives from each of the undersigned companies are available to discuss this issue at your or your staff's convenience. A copy of this letter and its attachments are being sent to the Secretary for placement in the record of this docket.

Sincerely,

MCI Representative

GTE Representative

PACBELL Representative

SWBT Representative

Attachment

Andrew Barrett Commissioner Federal Communications Commission 1919 M Street, N.W., Room 826 Washington, D.C. 20554

RE: CC Docket No. 92-77 (Phase II), Billed Party Preference

#### Dear Commissioner:

We are writing to you and your colleagues to express the mutual agreement of the undersigned companies on a service design for implementation of Billed Party Preference (BPP). The attached "BPP Service Description" represents a consensus view of the undersigned companies regarding key issues of BPP implementation. We developed the "BPP Service Description" in the belief that the Commission may decide this proceeding very soon. Thus, our efforts are intended to facilitate certain decisions the Commission must make, should it decide to order BPP implementation.

The "BPP Service Description" has been designed to extend the convenience of "0+" dialing to all customers of local and interexchange carriers and card issuers. The "BPP Service Description" will afford all customers the convenience of "0+" dialing from any phone; the ability to preselect their service provider; and the assurance of paying that provider for all their alternately billed calls (i.e., calling card, collect, and third number).

Additionally, the "BPP Service Description" has been designed to provide efficient means for IXCs to compete, with network access parity, in the calling card market. With BPP, all IXCs are positioned to receive interLATA traffic on a "0+" basis from any location, regardless of the billing information being used and regardless of which carrier may be the presubscribed choice of the originating line.

Costs for BPP implementation, as previously stated individually on the public record by the undersigned local exchange companies, are also consistent with the "BPP Service Description" and, once verified by the commission, are appropriate for full recovery. For example, the attached "BPP Service Description" calls for implementation with 10 digit screening, rather than "14-digit

screening". Implementation of BPP with 14 digit screening is not viable because it would, among other things, significantly increase the direct and indirect cost of BPP.

Representatives from each of the undersigned companies are available to discuss this issue at your or your staff's convenience. A copy of this letter and its attachments are being sent to the Secretary for placement in the record of this docket.

Sincerely,

MCI Representative

GTE Representative

PACBELL Representative

SWBT Representative

Attachment

James Quello Commissioner Federal Communications Commission 1919 M Street, N.W., Room 802 Washington, D.C. 20554

RE: CC Docket No. 92-77 (Phase II), Billed Party Preference

#### Dear Commissioner:

We are writing to you and your colleagues to express the mutual agreement of the undersigned companies on a service design for implementation of Billed Party Preference (BPP). The attached "BPP Service Description" represents a consensus view of the undersigned companies regarding key issues of BPP implementation. We developed the "BPP Service Description" in the belief that the Commission may decide this proceeding very soon. Thus, our efforts are intended to facilitate certain decisions the Commission must make, should it decide to order BPP implementation.

The "BPP Service Description" has been designed to extend the convenience of "0+" dialing to all customers of local and interexchange carriers and card issuers. The "BPP Service Description" will afford all customers the convenience of "0+" dialing from any phone; the ability to preselect their service provider; and the assurance of paying that provider for all their alternately billed calls (i.e., calling card, collect, and third number).

Additionally, the "BPP Service Description" has been designed to provide efficient means for IXCs to compete, with network access parity, in the calling card market. With BPP, all IXCs are positioned to receive interLATA traffic on a "0+" basis from any location, regardless of the billing information being used and regardless of which carrier may be the presubscribed choice of the originating line.

Costs for BPP implementation, as previously stated individually on the public record by the undersigned local exchange companies, are also consistent with the "BPP Service Description" and, once verified by the commission, are appropriate for full recovery. For example, the attached "BPP Service Description" calls for implementation with 10 digit screening, rather than "14-digit

screening". Implementation of BPP with 14 digit screening is not viable because it would, among other things, significantly increase the direct and indirect cost of BPP.

Representatives from each of the undersigned companies are available to discuss this issue at your or your staff's convenience. A copy of this letter and its attachments are being sent to the Secretary for placement in the record of this docket.

Sincerely,

MCI Representative

GTE Representative

PACBELL Representative

SWBT Representative

Attachment

December 23, 1993

Ervin Duggan Commissioner Federal Communications Commission 1919 M Street, N.W., Room 814 Washington, D.C. 20554

RE: CC Docket No. 92-77 (Phase II), Billed Party Preference

#### Dear Commissioner:

We are writing to you and your colleagues to express the mutual agreement of the undersigned companies on a service design for implementation of Billed Party Preference (BPP). The attached "BPP Service Description" represents a consensus view of the undersigned companies regarding key issues of BPP implementation. We developed the "BPP Service Description" in the belief that the Commission may decide this proceeding very soon. Thus, our efforts are intended to facilitate certain decisions the Commission must make, should it decide to order BPP implementation.

The "BPP Service Description" has been designed to extend the convenience of "0+" dialing to all customers of local and interexchange carriers and card issuers. The "BPP Service Description" will afford all customers the convenience of "0+" dialing from any phone; the ability to preselect their service provider; and the assurance of paying that provider for all their alternately billed calls (i.e., calling card, collect, and third number).

Additionally, the "BPP Service Description" has been designed to provide efficient means for IXCs to compete, with network access parity, in the calling card market. With BPP, all IXCs are positioned to receive interLATA traffic on a "0+" basis from any location, regardless of the billing information being used and regardless of which carrier may be the presubscribed choice of the originating line.

Costs for BPP implementation, as previously stated individually on the public record by the undersigned local exchange companies, are also consistent with the "BPP Service Description" and, once verified by the commission, are appropriate for full recovery. For example, the attached "BPP Service Description" calls for implementation with 10 digit screening, rather than "14-digit

screening". Implementation of BPP with 14 digit screening is not viable because it would, among other things, significantly increase the direct and indirect cost of BPP.

Representatives from each of the undersigned companies are available to discuss this issue at your or your staff's convenience. A copy of this letter and its attachments are being sent to the Secretary for placement in the record of this docket.

Sincerely,

Mel Representative

alea Hosales / wes

PACBELL Representative

GTE Representative

SWBT Representative

Attachment

# **BILLED PARTY PREFERENCE**

**Service Description** 

#### 1. SUMMARY OF SERVICE DESIGN

Billed Party Preference (BPP) is an access service provided under tariff to Interexchange Carriers and Operator Service Providers, herein both referred to as carriers.

BPP applies only to interLATA 0+, 01+ or 0- calls, not to calls dialed 1+, 00- or with access codes (10XXX, 950, 800). It does not apply to hotel guest 1+ calls, or to 1+ coin paid calls. It does not apply to 0+ or 1+ calls with an SAC code such as 800, 900, 700, or 500. It applies to all 0+, 01+ or 0- interLATA calls with a domestic billing number from all types of telephones.

Carrier Identification (Carrier ID) involves determining the Preferred Carrier of the billed party for interLATA calls dialed as 0 (called "0 minus"), 01 followed by an international number (called "0 plus international) or 0 followed by a 7 or 10 digit called number (called "0 plus"). To perform this service, the Local Exchange carrier (LEC) operator system collects the calling number, called number, billing method and billing number from the caller, either by a live operator or by an automated entry system. A database query launched from the LEC OSS (or in some cases OSS table logic) will be used to determine the Preferred Carrier selected by the billed party. See Appendix B for routing of each dialing code and carrier identification method on each call type.

After the billed party's Preferred Carrier has been determined, the call is then forwarded to the selected carrier for Service Processing. "Service Processing" involves the remaining operator or operator system functions on a call, such as asking the called party if they will accept the charges on a collect call. The carrier may choose to do Service Processing for itself, or use a third party.

Appendix A provides illustrations of the network architecture required for BPP and a summary of the call flow.

New signaling will be used after Carrier ID to pass the calling number, called number, billing method, billing number, and other information to carriers for Service Processing. This new signaling eliminates the need for the user to repeat calling, called, and billing number information when non LEC service processing is used. It improves fraud control and will enable carriers to do their own AMA recording. This signaling will be available only in an extended version of SS7, not MF. These SS7 extensions require standardization support from T1S1.

LECs may provide BPP services on calls originated at lines served by other local exchange carriers (LECs), i.e., Independent Telephone Companies (ITCs) upon mutual agreement.

The local exchange carriers and interexchange carriers throughout the industry need to use best efforts in working cooperatively, prior to implementation, to deliver ubiquitous service and effective billing procedures.

There will be no change in routing for calls billed to a foreign issued card or billed to a foreign billing number. See section 2.4.

#### 2. CALLS SUBJECT TO BPP ROUTING

BPP will apply to all interLATA 0+, 01+ and 0- calls including: person-to-person, station-to-station, collect, third party, LEC card and CIID card or domestic 891cards.<sup>1</sup> BPP is designed for interLATA calls dialed as 0, 01+or 0+, ("Dial 0 calls"). In these cases, the caller has not dialed a specific carrier code and often the carrier selected by the customer paying for the call would not be the same as the carrier to which the originating line is presubscribed. Thus, to accommodate the capability of the billed party to choose the carrier, these Dial 0 calls will be routed to the LEC OSS where a database query or OSS table logic will determine the billed party's Preferred Carrier. The end office cannot make this determination because insufficient information is available at that point in call processing to determine the billed party and hence the Preferred Carrier.

Calls originated from non equal access end offices can be accommodated under BPP by routing all 0 and interLATA 0+ calls to the LEC OSS, where a query or OSS table logic will be used to determine the preferred carrier of the billed party just as is done with calls from equal access offices.

All Dial 0 calls from public switched network access lines including those lines that originate from residences, businesses, hotels, hospitals, universities, prisons, LEC payphones and private payphones in both equal access and non equal access areas will be subject to BPP.

## 2.1 Call Screening and Validation

Prior to routing the call to a carrier, the LEC OSS, as appropriate for each call type, will perform some or all of the following: Originating Line Screening, Billed Number Screening (BNS), LEC Card Validation, and Carrier Identification (Carrier ID). BPP therefore requires routing all interLATA Dial 0 calls to the LEC OSS, while calls dialed 10XXX, or with other access codes, will be routed to the dialed Interexchange Carrier. Dial 1 calls will continue to be routed to the presubscribed carrier of the originating line. This change in Dial 0 call routing requires a change in equal access end offices, since routing of 0+ interLATA calls, in the present environment, is routed directly to the presubscribed carrier of the originating line.

#### 2.2 IntraLATA Calls

In the absence of a decision which changes the routing of intraLATA calls, calls dialed 0- with intraLATA completion desired and those dialed 0+ intraLATA are assigned to the Local Exchange Carrier without reference to LIDB. In contrast, intraLATA calls dialed with the standard carrier specific codes such as 10XXX or 950 will continue to be treated as Interexchange Carrier calls unless state regulators require otherwise. 0 calls, when the caller

BPP processing of Commercial Credit Cards will be dependent on resolution of a number of technical issues such as those related to conflicting number formats and implementation of LIDB-like database capability for validation of these cards.

verbally requests an authorized carrier will continue to be handled as they are today under Operator Transfer Service tariffs. These tariffs will either require revision or be replaced by Carrier ID.

#### 2.3 Signalling

This service design recognizes that some LECs may choose to install OSS7 between the end office and the LEC OSS. Signaling for this link in the future will be determined by each LEC based on:

- 1. The requirement to route "0+" interLATA calls to the LEC OSS,
- 2. The technology capabilities of each individual end office, and
- 3. Possible processes for the need for identification of the 1+ PIC of the originating line to the LEC OSS.

It is assumed that most LECs will choose to install OSS7 at any end-offices that are not presently equipped to accomplish the "split routing" of "0+" vs. "10xxx+0" and "00-" calls and identification of the 1+ PIC of the originating line. Other potential technical alternatives have been identified, but may also require vendor development.

In order to minimize future industry costs it would be desirable to standardize the interface between LEC end offices that subtend OSSs owned by another LEC.

## 2.4 Calls Not Subject to BPP Routing

Coin paid calls, calls billed to a foreign issued calling card, and international operator assisted calls billed to an international number (collect/third party) will not be subject to BPP. It should be noted, however, should BPP carrier selection be required in the future for foreign billed calls, the database query technology described in this document would support query of a database to determine the Preferred Carrier of the foreign billed party. In order to implement this capability the foreign billing card or line number would need to be contained in a database accessible within North America and populated with US carriers chosen by the end user rather than the foreign administration. This is necessary to remain consistent with the fundamental principle of BPP, that carrier choice is made by the billed party.

#### 3. CARRIER IDENTIFICATION

# 3.1 Call Processing

When the Dial 0 call arrives at the LEC OSS, the OSS performs originating station screening to determine allowed billing methods and call types permitted from the originating station. The LEC OSS will next offer the caller a choice of allowed billing options. Depending on the type of the call, the caller will be prompted to supply the called number, the billing method and billing number either verbally or via automated input. For collect and third number calls, as well as card calls, automated collection of this "front end" information will be possible at cut over. This is called Automated Alternate Billing Service (AABS). It is in place in most of the RBOCs and major LECs today although modification and capacity expansion will be required to support BPP functions.

Note: It is expected that LEC OSS processing will be designed to give the caller sufficient opportunity to enter a valid billing method that will result in the call being completed over the carrier chosen by the billed party. This process is described in more detail in Appendix B.)

#### 3.2 Default Selection

In certain situations, a default carrier may be the only alternative to complete a call. This may occur even though every effort is made to obtain a valid billing method and Preferred Carrier. See Appendix B for details. For example when the billed line number will not accept the specified billing method, the billing method is valid, the carrier of choice is not available in the called area or there is a technical failure in the network, a default would be required to complete the call. In these types of situations either the caller would be given the opportunity to choose a carrier or the call will be transferred to the presubscribed carrier of the originating line. It is anticipated that this default traffic would be minimal.

There are two options available for determining the default carrier. These options are 1) caller selection of carrier and 2) transfer to the presubscribed carrier of the originating line.

If the billing information is foreign, the caller is likely to be unfamiliar with the American interexchange carrier market and would therefore be unable to make an informed choice of carrier. In this case, the 1+ PIC associated with the calling line should be used as the default carrier. The 1+ PIC can be obtained in several ways, depending on the implementation alternative chosen by the LEC. These alternatives are:

- \* Signalling from the end-office, if OSS7 or full MF EAOSS signalling is supported between the end-office and LEC OSS; or
- \* An OLNS query to LIDB is performed when the call is received.

If the billing information is domestic, the LEC OSS may either use the 1+ PIC as described above for foreign billing or ask the caller to select a carrier. In the latter case, the LEC OSS will

provide an announcement to the caller. The caller will be able to 1) specify a carrier, if currently interacting with an operator or automated system; 2) request an operator, if currently interacting with an automated system; 3) change billing options; 4) as a LEC option, choose a carrier from a randomly ordered list of selected IXCs; or 5) request a new list of randomly selected !XCs.

Unless directed otherwise, each LEC providing the BPP service will select the option(s) which best satisfies its end-user customer choice service objectives.

# 3.3 LIDB Query

The LEC OSS will query the appropriate Line Information Data Bases (LIDB) to determine:

- 1. Whether the line of the billed party is restricted for 3rd Party or Collect calls or has any other restrictions.
- 2. Whether the LEC card information is valid or restricted in some manner,
- 3. The database entry of preferred carrier choices made by the billed party, and
- 4. Any billing or service restrictions associated with the originating line if this function has not already been performed. (As an option this function may be performed using LEC OSS tables.)

Each RBOC and several independent LECs have installed LIDBs for their and other OSPs use in validating alternate billing information or other service applications. These LIDBs are interconnected so that billing numbers can be used nationally. At a minimum, each LIDB contains working telephone number and calling card information for the telephone numbers administered by each LIDB owner, plus information for other LECs that may contract to store their data in a given LIDB. For each number the stored data will include applicable calling card PIN authorization numbers, BNS indicators, and Public Telephone indicators.

IXCs and other card issuers may also establish card databases that would be used in conjunction with BPP. These LIDB-like databases would need to comply with signalling standards and formats specified for LIDB, but may not contain information such as that used for OLNS.

The following are examples of how the preferred carrier of the billed party will be determined within LIDB or LIDB-like database:

- \* InterLATA calls billed to a LEC Card calls will be routed to the Preferred Carrier that the LEC card customer has preselected. (LIDB query required.)
- \* InterLATA Collect calls will be routed to by the preferred carrier selected by the called party. (LIDB query required.)
- \* Third party billed calls will be routed to the Preferred Carrier selected by the third party. (LIDB query required.)

- \* IXC Card calls (i.e. CIID or 891) may be routed to the IXC who has issued the card and is responsible for the service provided to the card holder (using OSS table logic). Or, as an option, the IXC who has issued the card may elect to have its database queried to determine Preferred Carrier.
- \* Other Card Calls, e.g. commercial credit cards (where the card issuer is not the IXC) will require database query. Cards issued by a company that does not provide the interexchange service will require a database query to determine Preferred Carrier. This will be accomplished by the card issuer establishing a LIDB-like database that is populated with the Preferred Carrier chosen by the card holder rather than the card issuer. This ensures that carrier choice is made by the card user, in keeping with the underlying principle of BPP.

#### 3.4 Denied Call Completion

As part of Carrier ID, the LEC will deny call completion based on BNS restrictions, a LEC calling card PIN mismatch, or any LEC card service restrictions determined as a result of the database query. (See further detail in Appendix B.) The operator or operator system will ask the caller for another billing method/billing number, which may identify a different billed party and/or a different Preferred Carrier. The change in preferred carrier makes this a Carrier ID function.

# 3.5 Preferred Carrier Information in LIDB

For BPP service, each LIDB line number record will be populated with the Primary Preferred Dial 0 Carrier (PPC) selected by the end user associated with that line. An Alternate Preferred Carrier (APC) will also be allowed for each line, determined by the Primary Preferred Carrier. This Alternate Preferred Carrier will be used if the Primary Preferred Carrier is unavailable. An International Preferred Carrier (IPC) for Dial 0 international calls is also associated with each line, and would be the same as the Primary Preferred Carrier, unless the Primary Preferred Carrier or the billed party requested otherwise. On each Carrier Identification query all three carrier fields will be returned to the LEC OSS.

End users will be notified by their LEC of the opportunity to designate their Primary Preferred Carrier for Dial 0 calls. Customers will be able to make this selection in response to a customer solicitation such as a bill insert or simple mailing such as a post card. The customer's existing Dial 1 carrier will be the default entry for nonrespondents. No second notification is required. The carrier selection solicitation process shall be based on the concepts of equal access but will be designed to be simpler and less costly than the Dial 1 balloting process.

LEC shared-use or other card programs will enable carriers to issue line number cards. These cards are subject to BPP when dialed as 0+ or 0- and will be processed the same way as LEC cards. Associated interface and procedures necessary for this will be developed based on carrier/LEC discussion.

There are no plans at this time to store non line number (nor non-RAO) format calling card numbers in the LIDB. Also, there are no plans to store a carrier specific PIN associated with a line number card in the LIDB. Carrier ID in the LIDB is associated with the line number, not the PIN. In those situations where BPP is not applicable, the call should be routed to the carrier determined from default carrier selection processes. This includes calls billed to a non U.S. issued calling card (i.e. 89X cards), for calls billed to points outside the U.S., and for Dial 0 sent paid where the billed party's Preferred Carrier cannot be determined.

A PPC may choose to specify an APC to be used for calls where the PPC does not offer the requested service. For example, this enables regional carriers to make business arrangements with national carriers to serve their customers calling from LATAs where the regional carrier has no originating service. The PPC may also specify the identity of the IPC for international calls, if they wish international calls to be delivered to a carrier other than themselves.<sup>1</sup>

For new service arrangements LEC Service Representative procedures, Service Order systems and Customer Record systems will be modified to ask the customer for a choice of Preferred Carrier for Dial 0, store that choice, and forward it to LIDB. Notification of the order and information about the customer will also be forwarded to the customer's selected Dial 0 carrier, as is done for Dial 1 choices today. Just as in the Dial 1 process, procedures will be implemented allowing carriers the option of submitting carrier selections to the LEC on their customers' behalf.

#### 3.6 Carrier Available Checks/Caller Select Routine

The Preferred Carrier selection provided by the LIDB is checked against Carrier Available criteria in the OSS. The carrier must have a POP in the originating LATA. If this criteria is not met, the APC will be tested against the same criteria. When neither the PPC nor the APC is "available", the caller will be asked either for an alternative billing method or to select the carrier. (Which of these actions is taken depends on both prior status of the call attempt and the type of call. See Appendix B) Any "exception" method of Preferred Carrier selection, i.e. other than use of the LIDB PPC, will be recorded on AMA tape, or forwarded to the carrier via signaling for those carriers who do not wish to use LEC Recording services.

Special arrangements will be required for international carrier selection in Hawaii to allow end users to specify a different international carrier than domestic carrier. If they do not choose an IPC, then their PPC's selection will apply. This is consistent with existing Dial 1 presubscription in Hawaii.

#### 4. BPP CALL DELIVERY FROM CARRIER ID TO SERVICE PROCESSING

# 4.1 Service Processing Summary

Carrier ID is a stand alone service. Neither Service Processing nor billing services need to be purchased from the LEC in order to receive the benefits of Carrier Identification. After Carrier ID is performed, the calling and called number, as well as the billing method and billing number will be forwarded through signaling to the Service Processor chosen by the carrier. If a carrier is performing its own Service Processing, the information and the call would be sent to its Point of Presence in the originating LATA.

The LEC will also forward the appropriate call processing details gathered during Carrier ID to the Preferred Carrier. This eliminates the need for the Preferred Carrier to duplicate any validation, OLNS and BNS queries by transferring information already collected by the LEC.

## 4.2 Signalling Standard

Signaling between the LEC OSS and the carrier will need to be expanded to pass forward to the carrier all appropriate data that would have been made available to the LEC during the Carrier ID and validation processes. This data can be used by the carrier for Service Processing, billing, maintenance, and administrative reports. Signalling for this transfer of information will conform to Industry Standards incorporated into updates to ANSI signalling standards and later reflected in LEC specifications such as Bellcore's TR-1144, which is yet to be published.

BPP data will be signaled from the LEC OSS to the IXC using SS7 protocol only. This is necessary to keep overall call processing time within limits acceptable to the public.

The OSS must deliver the call to the carrier POP in the originating LATA. Often the OSS will be located outside this LATA. In this case calls will be "back hauled" to the carrier POP that normally services the traffic from the originating end office. For access billing and ordering purposes, the access service will be treated as if it was offered via the LATA tandem in the originating LATA, even if the call is routed from end office to distant OSS and back to local POP.

For Collect and Bill to Third Party calls the LEC OSS will prompt the caller for billing method and the billing number. It is expected in most cases the LEC will use AABS systems to obtain this information. The LEC OSS will use this information for Carrier ID and if a valid carrier selection is determined will route the call to the selected carrier along with the information collected from the caller to complete Service Processing. In this fashion, call processing delays and redundant steps will be avoided. The time when the call is delivered to Service Processing will be the start of timing for access minutes of use.

## 5. BILLING SERVICES

The term "billing services" includes recording, rating, delivery of billing details to the carrier, bill processing, billing analysis, and reports. These are existing LEC billing services offered by most LECs and are optional services separate from Carrier ID.

Whether or not the carrier purchases LEC AMA Recording, the OSS will always record the billing details on AMA for CABS purposes.

# APPENDIX A - CALL FLOW SUMMARY

The following paragraphs provide call flow summaries for calls impacted by BPP.

BPP call flow processing applies to 0+ ten digit domestic number, 01+ international number, and 0- calls. Call flows are identified for the following call types:

- \* LEC Calling Card
- \* Collect Call
- \* Third Party Billed
- \* CHD and 89 Format Cards

# A.1 LEC Calling Card (fig. 1-1)

- 1. Customer dials address digits or 0-
- 2. Call is routed from the EO to the LEC OSS using traditional, EAOSS, or OSS7 signalling
- 3. LEC OSS performs ANI screening (using either OSS tables or OLNS query). Allowable call options are offered to the caller.
- 4. If dialed 0+ (or 01+) and LEC OSS is equipped with either ACCS or AABS, switch provides "bong" tone; customer enters card number. If dialed 0+ (or 01+) and LEC OSS is not equipped with either ACCS or AABS, operator requests billing type and enters card number. If dialed 0-, operator requests called number, billing type, and enters card number.
- 5. LEC OSS sends query to LIDB for card validation and Carrier information. LIDB receives query and sends response.
- 6. LEC OSS receives LIDB response and processes information. If validation is negative, customer is routed to announcement or offered other billing options. If validation is positive, carrier determination is made based on call destination, carrier availability, etc.
- 7. LIDB response parameters and associated billing information are transmitted from the LEC OSS to the selected IXC via SS7 signalling. Trunk connections are established and access billing initiated. The IXC need not query LIDB a second time for completion of the initial call; however, subsequent call originations would each require additional queries for validation.
- 8. IXC completes the call.

# A.2 Collect Call (fig. 1-2)

- 1. Customer dials address digits or 0-
- 2. Call is routed from the EO to the LEC OSS using traditional, EAOSS, or OSS7 signalling
- 3. LEC OSS performs ANI screening (using either OSS tables or OLNS query). Allowable call options are offered to the caller.
- 4. If dialed 0+ (or 01+) and LEC OSS is equipped with either AABS, the switch provides bong" tone; customer enters collect code "11" or allows timeout. If timeout, switch provides instructions to enter "11" for collect or say "Yes" (rotary phone option). If dialed 0+ (or 01+) and LEC OSS is not equipped with either AABS, operator requests billing type. If dialed 0-, operator requests called number and billing type.
- 5. LEC OSS sends BNS query to LIDB for screening and Carrier information. LIDB receives query and sends response.
- 6. LEC OSS receives LIDB response and processes information. If BNS validation is negative, customer is routed to announcement or offered other billing options. If BNS validation is positive, carrier determination is made based on call destination, carrier availability, etc.
- 7. LIDB response parameters and associated billing information are transmitted from the LEC OSS to the selected IXC via SS7 signalling. Trunk connections are established and access billing initiated. The IXC need not query LIDB a second time to complete the initial call. Sequence calling is not permitted on this call type.
- 8. IXC performs further processing which may entail obtaining customer's name and billing acceptance from the called party.
- 9. IXC completes/rejects call

# A.3 Third Party Billed (fig. 1-3)

- 1. Customer dials address digits or 0-
- 2. Call is routed from the EO to the LEC OSS using traditional, EAOSS, or OSS7 signalling
- 3. LEC OSS performs ANI screening (using either OSS tables or OLNS query). Allowable call options are offered to the caller.
- 4. If dialed 0+ (or 01+) and LEC OSS is equipped with AABS, the switch provides "bong" tone; customer enters collect code "12" and third party number or allows timeout. If timeout, switch provides instructions to enter "12" and third party number. If dialed 0+ or 01+ and LEC OSS is not equipped with either AABS, operator requests billing type and billing number. If dialed 0-, operator requests called number, billing type and billed number.
- 5. LEC OSS sends BNS query to LIDB for screening and Carrier information. LIDB receives query and sends response.
- 6. LEC OSS receives LIDB response and processes information. If BNS validation is negative, customer is routed to announcement or offered other billing options. If BNS

- validation is positive, carrier determination is made based on call destination, carrier availability, etc.
- 7. LIDB response parameters and associated billing information are transmitted from the LEC OSS to the selected IXC via SS7 signalling. Trunk connections are established and access billing initiated. The IXC need not query LIDB a second time to complete the intial call. Sequence calling is not permitted for this call type.
- 8. IXC performs further processing which may entail obtaining customer's name and billing acceptance from the third party number
- 9. IXC completes/rejects call

# A.4 CIID and 89 Format Cards - Option 1 (fig. 1-4)

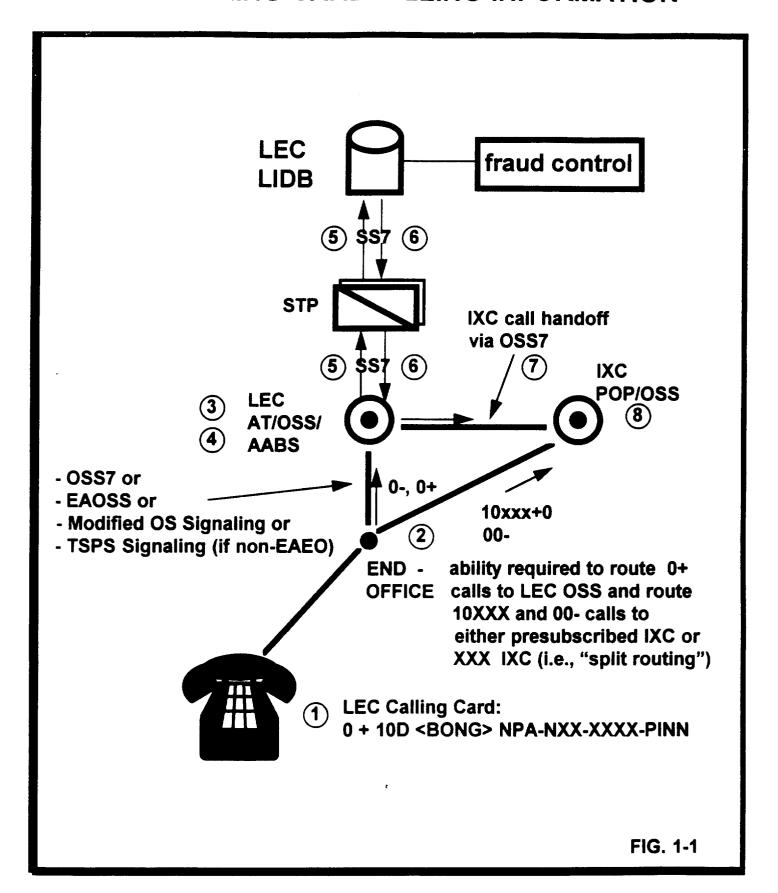
- 1. Customer dials address digits or 0-
- 2. Call is routed from the EO to the LEC OSS using traditional, EAOSS, or OSS7 signalling
- 3. LEC OSS performs ANI screening (using either OSS tables or OLNS query). Allowable call options are offered to the caller.
- 4. If dialed 0+ (or 01+) and LEC OSS is equipped with either ACCS or AABS, switch provides "bong" tone; customer enters card number. If dialed 0+ (or 01+) and LEC OSS is not equipped with either ACCS or AABS, operator requests billing type and enters card number. If dialed 0-, operator requests called number, billing type, and enters card number.
- 5. The LEC OSS will determine the Preferred Carrier from OSS tables based upon the first six digits of the card number
- 6. LEC OSS receives the OSS table data and processes the information. Carrier determination is based on table data, call destination and carrier availability, etc.
- 7. Associated billing information is transmitted from the LEC OSS to the selected IXC via SS7 signalling. Trunk connections are established and access billing initiated.
- 8. IXC validates the calling card and completes/rejects the call.

## A.5 CIID and 89 Format Cards - Option 2 (fig. 1-5)

- 1. Customer dials address digits or 0-
- 2. Call is routed from the EO to the LEC OSS using traditional, EAOSS, or OSS7 signalling
- 3. LEC OSS performs ANI screening (using either OSS tables or OLNS query). Allowable call options are offered to the caller.
- 4. If dialed 0+ (or 01+) and LEC OSS is equipped with either ACCS or AABS, switch provides "bong" tone; customer enters card number. If dialed 0+ (or 01+) and LEC OSS is not equipped with either ACCS or AABS, operator requests billing type and enters card number. If dialed 0-, operator requests called number, billing type, and enters card number.

- 5. The LEC OSS will query the card issuer's LIDB-like database for validation and carrier information. The card issuer's DB receives the query and sends a response consistent with LIDB specifications
- 6. LEC OSS receives the card issuer's DB response and processes the information. If validation is negative, customer is routed to announcement or offered other billing options. If validation is positive (or not performed), carrier determination is made based on call destination, carrier availability, etc.
- 7. DB response parameters and associated billing information are transmitted from the LEC OSS to the selected IXC via SS7 signalling. Trunk connections are established and access billing initiated. The IXC may or may not query the card issuer's DB a second time. (Depending upon whether card was also validated by the LEC)
- 8. IXC completes/rejects the call.

# BILLED PARTY PREFERENCE NETWORK ARCHITECTURE AND CALL FLOWS LEC CALLING CARD BILLING INFORMATION



# BILLED PARTY PREFERENCE NETWORK ARCHITECTURE AND CALL FLOWS COLLECT BILLING INFORMATION

